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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,419	07/28/2006	Naoshi Nagai	1000023-000115	7281

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EXAMINER

JONES JR., ROBERT STOCKTON

ART UNIT	PAPER NUMBER
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1762

NOTIFICATION DATE	DELIVERY MODE
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10/18/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com
offserv@bipc.com

Office Action Summary	Application No. 10/587,419	Applicant(s) NAGAI ET AL.	
	Examiner ROBERT JONES JR.	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-27 is/are pending in the application.
- 4a) Of the above claim(s) 9-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,3,5-8 and 23-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/7/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 25 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

3. Claims 25 and 27 require that the amount of a polymer having a structural unit represented by Formula (I) of Claim 1 in a composition is not less than 70% based on the whole composition. For support, the Applicant points to paragraphs [0061], [0062], and [0066] of the specification.

4. Paragraphs [0061] and [0062] discuss preparing a double bond-terminated monomer containing structural units A and R. Paragraph [0066] states that the proportion of the vinyl or vinylidene type double bond is preferably 70% or more of the total terminal groups. The double bond is then converted to an epoxy group and incorporated into the inventive polymer, as described at page 20-21, paragraphs [0069]-[0071].

5. This number quantifies the percentage of terminal double bonds within a precursor to one component which is employed as a monomer in forming the inventive polymer. This number does not relate in any way to the amount of a polymer having the structural unit represented by Formula (I) in a composition. Thus, the subject matter of Claims 25 and 27 represents new matter.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 3, 5-8, and 23-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 1 requires the following: A polymer having at least a structural unit represented by the following Formula (1) (formula omitted), wherein A is a polymer of ethylene or propylene (structural and variable limitations omitted), which contains a structural unit represented by Formula (2) (formula omitted), and at least one structural unit selected from the group consisting of structural units represented by Formula (5) and Formula (6) (formulae omitted).

9. The Claim references two polymers: one in the preamble of the claim, and another (i.e. polymer A, a polymer of ethylene or propylene) as a pendant group on the preamble polymer. It is not clear which polymer, the preamble polymer or polymer A, must contain a structural unit represented by Formula (2) and Formula (5) or (6).

10. Thus, the claim may be interpreted in two ways: The first interpretation requires a polymer backbone which requires subunits of Formula (1), subunits of Formula (2), and at least one subunit of Formula (5) or (6). The second interpretation requires a polymer backbone formed from subunits of Formula (1); wherein pendant group A of (1) contains a subunit of Formula (2) and at least one subunit of Formula (5) or (6).

11. Because Claim 1 is subject to more than one interpretation, it is indefinite under 35 USC 112, second paragraph.

12. Claims 3, 8, and 25-27 depend from or refer back to Claim 1, and are therefore similarly indefinite.

13. Claim 5 requires the following: A polymer having at least a structural unit represented by Formula (1) (omitted), wherein A is a polymer of ethylene or propylene (structural and variable limitations omitted), which is a polysiloxane compound (II) containing the structural unit represented by Formula (2) (omitted).

14. It is evident that Formula (2) is not a subspecies of Formula (1). Formula (1) requires that W and Z represent, *inter alia*, an oxygen atom, and that x and y are 1. Formula (2) possesses a single oxygen atom, and therefore does not require unit Z of Formula (1) (in other words, in (2), y=0). It is unclear whether the unit represented by Formula (2) must be incorporated into the polymer having a structural unit represented by (1) or the polymer which makes up the pendant group A.

15. Because Claim 5 is subject to more than one interpretation, it is indefinite under 35 USC 112, second paragraph.

16. Claims 6 and 23 depend from Claim 5, and are therefore similarly indefinite.

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17. Claim 7 requires a polymer having at least a structural unit represented by Formula (1), wherein A is a polymer of ethylene or propylene, which is a polymer (III) represented by Formula (14). As with Claims 1 and 5, it is unclear whether Formula (14) must be incorporated into the polymer containing Formula (1), or the polymer which makes up the pendant group A. Because Claim 7 is subject to more than one interpretation, it is indefinite under 35 USC 112, second paragraph.

18. It is further noted that if the Applicant intends Formula (14) to be a subspecies of Formula (1), the claim will also be considered indefinite. The definitions for X and Y in Formula (14), particularly the group defined by Formula (16), include possibilities which fall outside the description of W and Z of Formula (1). While the definitions for W and Z include an NH group, Formula (16) includes combinations in which both free valences of the nitrogen are occupied by hydrocarbon, acyl, or polyalkylene glycol groups (i.e. no H is present).

19. Claim 24 depends from Claim 7, and is therefore similarly indefinite.

Response to Arguments

20. Applicant's arguments with respect to claims 1, 3, and 5-8 have been considered but are moot in view of the new grounds of rejection.

21. It is noted that all rejections remaining in the instant application with respect to Claims 1, 3, and 5-8 fall under 35 USC 112, first and second paragraphs. The present amendment requires that in all independent claims, the pendant group A is formed from

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ethylene or propylene. Inasmuch as all previously applied references teach the use of polybutene rather than polymers containing ethylene or propylene, the amendment to the claims is sufficient to overcome the previously applied art.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

23. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT JONES JR. whose telephone number is (571)270-7733. The examiner can normally be reached on Monday - Thursday, 9 AM - 5 PM.

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25. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

26. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RSJ

/David Wu/

Supervisory Patent Examiner, Art Unit 1796